UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,251	03/17/2005	Hjalmar E A Huitema	NL02 0872 US	4131

24738 7590 02/04/2008

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION
INTELLECTUAL PROPERTY & STANDARDS
370 W. TRIMBLE ROAD MS 91/MG
SAN JOSE, CA 95131

EXAMINER	
LESPERANCE, JEAN E	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
02/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,251	HUITEMA ET AL.	
	Examiner	Art Unit	
	Jean E. Lesperance	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The application filed March 17, 2005 is presented for examination and claims 1-20 are pending.

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 9, 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,677,709 ("Ma et al.").

Regarding claim 1, Ma et al. teach the control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volts, but may be more or less depending on the characteristics of the OLED (see Fig.1), and the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED , the adjustment is going to repeat to keep the luminance of the OLED constant. The prior art does not specifically teach the adjustment means are set to repeatedly adjust the applied voltages in response to the measured cell gap. However, the prior art teaches the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively,

by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED , the adjustment is going to repeat to keep the luminance of the OLED constant. Thus, this would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED , the adjustment is going to repeat to keep the luminance of the OLED constant to obtain the adjustment means are set to repeatedly adjust the applied voltages in response to the measured cell gap because this would provide a resiliently flexible display that exhibits the advantages of organic light emitting device technology and avoids the disadvantages conventional devices, such as excessive cross talk.

Regarding claims 6, 7, 9, and 11, they are rejected on the same ground as claim 1.

Regarding claim 12 and 13, Ma et al. teach The control voltage across the OLED activates the OLED to produce light. The OLED can thus be switched on an off by applying an activating voltage to the first conductive layer 170 while supplying a control voltage to the second conductive layer 190. The activating voltage used to bend the cantilever 210 by electrostatic attraction may be on the order of 10-100 volts, for example, but may be varied as desired according to the stiffness of the cantilever 210. The control voltage applied by the second conductive layer 190 across the OLED is

typically 2-10 volts, but may be more or less depending on the characteristics of the OLED. Furthermore, through pulse width modulation of the control voltage, the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (see Fig.1).

Regarding claim 14, Ma et al. teach resiliently flexible display that exhibits the advantages of organic light emitting device technology and avoids the disadvantages conventional devices, such as excessive cross talk (column 2, lines 33-36).

Regarding claim 15, Ma et al. teach a portable digital assistant (PDA) (column 1, line 21).

Regarding claim 16, Ma et al. teach the control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volts, but may be more or less depending on the characteristics of the OLED (see Fig.1), and the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED , the adjustment is going to repeat to keep the luminance of the OLED constant. The prior art does not specifically teach characterized in that the steps are performed repeatedly during operation of the flexible display. However, the prior art teaches the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED ,

the adjustment is going to repeat to keep the luminance of the OLED constant. Thus, this would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED , the adjustment is going to repeat to keep the luminance of the OLED constant to obtain characterized in that the steps are performed repeatedly during operation of the flexible display because this would provide a resiliently flexible display that exhibits the advantages of organic light emitting device technology and avoids the disadvantages conventional devices, such as excessive cross talk.

Regarding claims 3 and 18, Ma et al. teach the duty cycle of the OLED, and hence its brightness, can be controlled (column 5, lines 49-52).

Regarding claims 2 and 17, Ma et al. teach the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52).

Regarding claim 4 and 19, Ma et al. teach The OLED can thus be switched on an off by applying an activating voltage to the first conductive layer 170 while supplying a control voltage to the second conductive layer 190. The activating voltage used to bend the cantilever 210 by electrostatic attraction may be on the order of 10-100 volts, for example, but may be varied as desired according to the stiffness of the cantilever 210.

The control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volts, but may be more or less depending on the characteristics of the OLED (column 5, lines 39-48).

Regarding claims 5 and 20, Ma et al. teach the control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volt (see Fig.1).

Claims 8 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,677,709 ("Ma et al.") in view of USPN 6,876,723 (?Irvin et al.").

4. Regarding claims 8 and 10, Irvin et al. teach the liquid ink droplets are ejected from the nozzle using pressure pulses generated by an oscillating piezoelectric crystal or by heating the nozzle to generate an ink droplet resulting from bubble formation or from ink phase change (column 2, lines 13-17) and a multicolor display device, comprising a transparent substrate, electroluminescent materials deposited via an inkjet printing mechanism into wells that are defined by masks produced via a lithographic technique (column 2, lines 27-31).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the piezoelectric crystal and lithographic as taught by Irvin et al. in the system disclosed by Ma et al. because this would the compositions are used to create a high-resolution pattern or image onto a substrate for imaging and display applications.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the ably examiner should be directed to Jean Lesperance whose telephone number is (571)

272-7692. The examiner can normally be reached on from Monday to Friday between 10:OOAM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Art Unit 2629

Date 1/29/2008

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600